

WHAT IS CLAIMED IS:

- 1 1. An adenovirus comprising a gene, the expression of which is under the control of a site-specific  
2 recombinase.
- 1 2. The adenovirus of claim 1 wherein said gene is comprised of foreign DNA and is operably linked  
2 to target sites of a site specific recombinase, and wherein recombination between said target sites  
3 results in expression of a gene product of said gene.
- 1 3. An adenovirus comprising a gene, and site-specific recombinase target sites operably linked to  
2 the gene, whereby recombination between said target sites mediated by a site-specific recombinase  
3 alters expression of the gene.
- 1 4. An adenovirus comprising a gene, and site-specific recombinase target sites flanking a promoter  
2 sequence that promotes expression of the gene, whereby recombination between said target sites  
3 mediated by a site-specific recombinase removes the promoter sequence, resulting in decreased  
4 expression of the gene.
5. The adenovirus of claim 4, wherein the gene is from a non-adenoviral source.
- 1 6. An adenovirus comprising a gene, a promoter sequence directed away from said gene, and two  
2 site specific recombinase target sites flanking said promoter but oriented in opposite orientation to  
3 one another, whereby recombination between said target sites mediated by a site specific  
4 recombinase inverts the promoter sequence, resulting in increased expression of the gene.
- 1 7. The adenovirus of claim 6, wherein the gene is from a non-adenoviral source.
- 1 8. An adenovirus comprising a gene, and site-specific recombinase target sites flanking a DNA

2 spacer sequence located between a promoter sequence and the gene, whereby recombination between  
3 said target sites mediated by a site-specific recombinase removes the DNA spacer sequence, resulting  
4 in increased expression of the gene.

1 9. The adenovirus of claim 8, wherein the gene is from a non-adenoviral source.

1 10. An adenovirus comprising a gene and site-specific recombinase target sites flanking a coding  
2 sequence for the gene, whereby recombination between said target sites mediated by a site-specific  
3 recombinase removes the coding sequence, resulting in decreased expression of the gene.

1 11. The adenovirus of claim 10, wherein the gene is from a non-adenoviral source.

1 12. An adenovirus comprising a gene, a portion of said gene comprising a coding sequence oriented  
2 in an opposite direction to normal translation of the gene, and two site specific recombinase target  
3 sites flanking said coding sequence but oriented in opposite orientation to one another, whereby  
4 recombination between said target sites mediated by a site specific recombinase inverts the coding  
5 sequence, resulting in increased expression of the gene.

1 13. The adenovirus of claim 12, wherein the gene is from a non-adenoviral source.

1 14. An adenovirus comprising a gene and site-specific recombinase target sites flanking the gene,  
2 whereby recombination between said target sites mediated by a site-specific recombinase removes  
3 the gene, resulting in decreased expression of the gene.

1 15. The adenovirus of claim 14, wherein the gene is from a non-adenoviral source.

1 16. An adenovirus comprising a gene, said gene oriented in an opposite direction to normal

2 translation of the gene, and two site specific recombinase target sites flanking said gene but oriented  
3 in opposite orientation to one another, whereby recombination between said target sites mediated  
4 by a site specific recombinase inverts the gene, resulting in increased expression of the gene.

1 17. The adenovirus of claim 16, wherein the gene is from a non-adenoviral source.